



Dr. Ellen Ochoa

(1958 –)

MEXICAN-AMERICAN FIRST LATINA IN SPACE; INVENTED OPTICAL DEVICES FOR SPACE

*W*e salute Dr. Ellen Ochoa twice: both as a “Latino Trailblazer” who was the first Latina in space and again as a pioneering inventor.

Born in Los Angeles, California, Dr. Ochoa studied physics at San Diego State University, and then earned a Master’s Degree and Ph.D in electrical engineering at Stanford. She began NASA training in 1990, and by 1993 was ready for lift-off.

Dr. Ochoa made history as the first Latina in space on April 8, 1993, when Space Shuttle *Discovery* embarked on a nine-day, 148-orbit mission. She was responsible for operating the robotic arm to retrieve and deploy a satellite. During this and three more voyages (in 1994, 1999 and 2002), she studied the Earth’s ozone layer and solar wind. In addition to logging more than 1,000 hours in orbit, Dr. Ochoa oversaw development of and training on the Space Shuttles’ robotic arms.



An expert in optics, photorefractive crystals and space robotics, Dr. Ochoa has several patents on her inventions. She has said her proudest scientific achievement was development of an “optical inspection technique for detecting pattern defects in real time”. Other patents include an “optical system for nonlinear median filtering of images”, a “distortion-invariant optical pattern recognition system” and a method of noise reduction.

Dr. Ochoa is now Director of the Lyndon B. Johnson Space Center (the first Latino and second woman to serve as Director) in Houston. She is honored by having two elementary schools named after her, one in Pasco, Washington, and one in Cudahy, California.



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